

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference XA1716	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/GB2004/005373	International filing date (day/month/year) 21/12/2004	(Earliest) Priority Date (day/month/year) 22/12/2003
Applicant  BAE SYSTEMS PLC		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☒ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 4

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB2004/005373

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 G02B6/42 G02B6/26

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G02B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
✓ X	EP 1 150 150 A (BRITISH AEROSPACE PUBLIC LIMITED COMPANY) 31 October 2001 (2001-10-31) cited in the application  paragraphs '0030! - '0033!; figure 2 paragraphs '0034!, '0035!; figure 3 paragraph '0001! - paragraph '0004! -----	1,2,4,5, 8,10-13, 15,16, 18,19, 21,23-25
✓ X	EP 1 353 206 A (BAE SYSTEMS PLC) 15 October 2003 (2003-10-15)  paragraph '0040! - paragraph '0044!; figure 1C paragraph '0001! - paragraph '0003! ----- -/--	1,6,8, 10-13, 15,19, 21,23-25

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

24 February 2005

Date of mailing of the international search report

03/03/2005

Name and mailing address of the ISA

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International Application No  
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
✓ X	US 6 370 292 B1 (STRAKE ENGELBERT) 9 April 2002 (2002-04-09)  column 3, line 42 - column 5, line 43; claims 4,5; figures 1-3 -----	1,2,4-6, 15,16, 18,19, 21,23
✓ X	US 6 516 105 B1 (KHUSID MICHAEL ET AL) 4 February 2003 (2003-02-04) column 2, line 14 - column 3, line 35; figure 1 -----	1,4-6,8, 15,19-21
✓ X	WO 02/31563 A (HIMMLER ANDREAS ; SIEMENS AG (DE)) 18 April 2002 (2002-04-18)  page 3, line 18 - page 10, line 28; figures 1-5 -----	1,2,4, 8-10,15, 16,18, 20,21,24
✓ X	US 6 285 808 B1 (BIRKHOLTZ PETER ET AL) 4 September 2001 (2001-09-04)  column 3, line 33 - column 4, line 3; figure 1 -----	1,4-6, 15, 19-21,23
✓ X A	DE 89 12 928 U (GIESE WILLI-JÜRGEN) 7 March 1991 (1991-03-07) the whole document -----	15,16, 18,20 2
X	WO 03/098301 A (QINETIQ LIMITED; BURNETT, JAMES, GORDON; LLOYD, PETER, ARTHUR) 27 November 2003 (2003-11-27)  page 4 - page 5; figure 4 -----	1,2,4,6, 8,10-13, 15,16, 19,21, 23-25
X	KANG H K ET AL: "DEVELOPMENT OF FIBRE OPTIC INGRESS/EGRESS METHODS FOR SMART COMPOSITE STRUCTURES" SMART MATERIALS AND STRUCTURES, IOP PUBLISHING LTD., BRISTOL, GB, vol. 9, no. 2, April 2000 (2000-04), pages 149-156, XP000920147 ISSN: 0964-1726 cited in the application page 151; figures 2,6,7 -----	1,4,7,8, 10-13, 15, 19-21,23

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

## Continuation of Box II.2

A search of claim 14 is not possible, due to the fact that no technical feature of the "surface module" itself is defined.

Claims 26-31 are not searched according to Rule 6.2(a) PCT.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB2004/005373

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No  
PCT/GB2004/005373

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
EP 1150150	A	31-10-2001	EP	1150150 A1	31-10-2001
EP 1353206	A	15-10-2003	EP	1353206 A2	15-10-2003
			AU	777128 B2	07-10-2004
			AU	2530901 A	24-07-2001
			EP	1247124 A2	09-10-2002
			WO	0151974 A2	19-07-2001
			JP	2003519822 T	24-06-2003
			US	2002136498 A1	26-09-2002
US 6370292	B1	09-04-2002	DE	19838519 A1	02-03-2000
			GB	2340959 A , B	01-03-2000
US 6516105	B1	04-02-2003	AU	9648901 A	22-04-2002
			WO	0231567 A2	18-04-2002
WO 0231563	A	18-04-2002	WO	0231563 A1	18-04-2002
US 6285808	B1	04-09-2001	DE	19826648 A1	30-12-1999
DE 8912928	U	07-03-1991	DE	8912928 U1	07-03-1991
WO 03098301	A	27-11-2003	WO	03098301 A2	27-11-2003